رفق	F Errors Corrected by th STIC S ms Branch
Serial	Number: 09/49/974 CRF Processing Date: 9/26/200
\Box .	Changed a file from non-ASCII to ASCII ENTERED Verified by: RECEIVED Star
	Changed the margins in cases where the sequence text was "wrapped" down to the next line.
	Edited a format error in the Current Application Data section, specifically:
	Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other
	Added the mandatory heading and subheadings for "Current Application Data".
	Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
	Changed the spelling of a mandatory field (the headings of subheadings), specifically:
	Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
	Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
	Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
	Inserted colons after headings/subheadings. Headings edited included:
	Deleted extra, invalid, headings used by an applicant, specifically:
	Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file; page numbers throughout text; other invalid text, such as
	Inserted mandatory headings, specifically:
	Corrected an obvious error in the response, specifically:
	Edited identifiers where upper case is used but lower case is required, or vice versa.
	Corrected an error in the Number of Sequences field, specifically:
	A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
	Deleted <i>ending</i> stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a Patentin bug). Sequences corrected:
	Other:

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

1632

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/491,974

DATE: 09/26/2000 TIME: 16:43:00 Does Not Comply Corrected Diskette Needed

Input Set : A:\Sequence Listing.TXT
Output Set: N:\CRF3\09262000\1491974.raw

```
9 <110> APPLICANT: U.S. Medical Research Institute of Infectious Diseases
              Schmaljohn, Connie S.
     11
             Hooper, J. W.
     13 <120> TITLE OF INVENTION: DNA Vaccines Against Hantavirus Infections
     15 <130> FILE REFERENCE: Army-142
     17 <140> CURRENT APPLICATION NUMBER: 09/491,974
C--> 19 <141> CURRENT FILING DATE: 2000-07-27
     21 <150> PRIOR APPLICATION NUMBER: US 60/117,680
     23 <151> PRIOR FILING DATE: 1999-01-29
     25 <160> NUMBER OF SEQ ID NOS: 4
     27 <170> SOFTWARE: Microsoft Word, Office 97, IBM compatible
ERRORED SEQUENCES
     397 <210> SEQ ID NO: 4
     399 <211> LENGTH: 6050
     400 <212> TYPE: DNA
     401 <213> ORGANISM: artificial sequence
W--> 402 <220> FEATURE:
    403 <223> OTHER INFORMATION: /note="S genome segment from SEOV, strain SR-11, subcloned into DNA
vector pWRG7077
W--> 404 <400> SEQUENCE: 4
     405 ggggggggg ggcgctgagg tctgcctcgt gaagaaggtg
                                                        40
     406 ttgctgactc ataccaggcc tgaatcgccc catcatccag
                                                        80
     407 ccagaaagtg agggagccac ggttgatgag agctttgttg
                                                       120
     408 taggtggacc agttggtgat tttgaacttt tgctttgcca
                                                       160
     200
     410 cttcaactca gcaaaagttc gatttattca acaaagccgc
    411 cgtcccgtca agtcagcgta atgctctgcc agtgttacaa
                                                       280
    412 ccaattaacc aattetgatt agaaaaacte atcgagcate
                                                       320
    413 aaatgaaact gcaatttatt catatcagga ttatcaatac
                                                       360
    414 catatttttg aaaaagccgt ttctgtaatg aaggagaaaa
                                                       400
    415 ctcaccgagg cagttccata ggatggcaag atcctggtat
                                                       440
    416 cggtctgcga ttccgactcg tccaacatca atacaaccta
                                                       480
    417 ttaatttccc ctcgtcaaaa ataaggttat caagtgagaa
                                                       520
    418 atcaccatga gtgacgactg aatccggtga gaatggcaaa
                                                       560
     419 agettatgca tttettteea gaettgttea acaggeeage
                                                       600
                                                       640
     420 cattacgctc gtcatcaaaa tcactcgcat caaccaaacc
     421 gttattcatt cgtgattgcg cctgagcgag acgaaatacg
                                                       680
    422 cgatcgctgt taaaaggaca attacaaaca ggaatcgaat
                                                       720
    423 gcaaccggcg caggaacact gccagcgcat caacaatatt
    424 ttcacctgaa tcaggatatt cttctaatac ctggaatgct
                                                       800
    425 gttttcccgg ggatcgcagt ggtgagtaac catgcatcat
                                                       840
    426 caggagtacg gataaaatgc ttgatggtcg gaagaggcat
427 aaattccgtc agccagttta gtctgaccat ctcatctgta
                                                       880
                                                       920
    428 acatcattgg caacgctacc tttgccatgt ttcagaaaca
                                                       960
    429 actotggcgc atcgggcttc ccatacaatc gatagattgt 1000
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/491,974

DATE: 09/26/2000 TIME: 16:43:00

Input Set : A:\Sequence Listing.TXT
Output Set: N:\CRF3\09262000\I491974.raw

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431	ccatataaat	cagcatccat	gttggaattt	aatcgcggcc	1080
432	tcgagcaaga	cgtttcccgt	tgaatatggc	tcataacacc	1120
433	ccttgtatta	ctgtttatgt	aagcagacag	ttttattgtt	1160
434	catgatgata	tatttttatc	ttgtgcaatg	taacatcaga	1200
435	gattttgaga	cacaacgtgg	ctttcccccc	cccccggca	1240
436	tgcctgcagg	togacataaa	tcaatattgg	ctattggcca	1280
437	ttgcatacgt	tgtatctata	tcataatatg	tacatttata	1320
438	ttggctcatg	tccaatatga	ccgccatgtt	gacattgatt	1360
439	attgactagt	tattaatagt	aatcaattac	ggggtcatta	1400
440	gttcatagcc	catatatgga	gttccgcgtt	acataactta	1440
441	cggtaaatgg	cccqcctcqt	gaccgcccaa	cgacccccgc	1480
442	ccattgacgt	caataatgac	gtatgttccc	atagtaacgc	1520
443	caatagggac	tttccattga	cgtcaatggg	tggagtattt	1560
444	acggtaaact	gcccacttgg	cagtacatca	agtgtatcat	1600
445	atgccaagtc	cggcccccta	ttgacgtcaa	tgacggtaaa	1640
446	tggcccgcct	ggcattatgc	ccagtacatg	accttacggg	1680
447	actttcctac	ttggcagtac	atctacgtat	tagtcatcgc	1720
448	tattaccatg	gtgatgcggt	tttggcagta	caccaatggg	1760
449	cgtggatagc	ggtttgactc	acggggattt	ccaagtctcc	1800
450	accccattga	cgtcaatggg	agtttgttt	ggcaccaaaa	1840
451	tcaacgggac	tttccaaaat	gtcgtaataa	ccccgccccg	1880
452	ttgacgcaaa	tgggcggtag	gcgtctacgg	tgggaggtct	1920
453	atataagcag	agctcgttta	gtgaaccgtc	agatcgcctg	1960
454	gagacgccat	ccacgctgtt	ttgacctcca	tagaagacac	2000
455	cgggaccgat	ccagcctccg	cggccgggaa	cggtgcattg	2040
456	gaacgcggat	tccccgtgcc	aagagtgacg	t aagtaccgc	2080
457	ctatagactc	tataggcaca	cccctttggc	tcttatgcat	2120
458	gctatactgt	ttttggcttg	gggcctatac	acccccgctc	2160
459	cttatgctat	aggtgatggt	atagcttagc	ctataggtgt	2200
460	gggttattga	ccattattga	ccactcccct	attggtgacg	2240
461	atactttcca	ttactaatcc	ataacatggc	tctttgccac	2280
462	aactatctct	attggctata	tgccaatact	ctgtccttca	2320
463	gagactgaca	cggactctgt	atttttacag	gatggggtcc	2360
464	catttattat	ttacaaattc	acatatacaa	caacgccgtc	2400
465	ccccgtgccc	gcagttttta	ttaaacatag	cgtgggatct	2440
466	ccacgcgaat	ctcgggtacg	tgttccggac	atgggctctt	2480
467	ctccggtagc	ggcggagctt	ccacatccga	.gccctggtcc	2520
468	catgcctcca	gcggctcatg	gtcgctcggc	agctccttgc	2560
469	tcctaacagt	ggaggccaga	cttaggcaca	gcacaatgcc	2600
470	caccaccacc	agtgtgccgc	acaaggccgt	ggcggtaggg	2640
471	tatgtgtctg	aaaatgagct	cggagattgg	gctcgcaccg	2680
472	tgacgcagat	ggaagactta	aggcagcggc	agaagaagat	2720
473	gcaggcagct	gagttgttgt	attctgataa	gagtcagagg	2760
474	taactcccgt	tgcggtgctg	ttaacggtgg	agggcagtgt	2800
475	agtctgagca	gtactcgttg	ctgccgcgcg	cgccaccaga	2840
476	cataatagct	gacagactaa	cagactgttc	ctttccatgg	2880
477	gtcttttctg	cagtcaccgt	ccaagcttgc	ggccaattcg	2920
478	gcacgagaga	gtagtagact	ccctaaagag	ctactacact	2960

RAW SEQUENCE LISTING PATENT APPLICATION: US/09/491,974

. Dr

DATE: 09/26/2000 TIME: 16:43:00

Input Set: A:\Sequence Listing.TXT
Output Set: N:\CRF3\09262000\I491974.raw

479 aacaagaaaa atggcaacta tggaagaaat ccagagagaa 480 atcagtgctc acgaggggca gcttgtgata gcacgccaga 481 aggtcaagga tgcagaaaag cagtatgaga aggatcctga 482 tgacttaaac aagagggcac tgcatgatcg ggagagtgtc 3120 3160 483 gcaqcttcaa tacaatcaaa aattgatgaa ttgaagcgcc 3200 484 aacttgccga cagattgcag cagggaagaa catccgggca 485 ggaccgggat cctacagggg tagagccagg tgatcatctt 3240 486 aaggaaagat cagcactaag ctacgggaat acactggacc 3280 487 tgaatagtct tgacattgat gaacctacag gacagacagc 3320 488 tgattggctg accataattg tctatctgac atcattcgtg 3360 3400 489 gtcccgatca tcttgaaggc actgtacatg ttaacaacac 490 gaggtaggca gacttcaaag gacaacaagg ggatgaggat 3440 491 cagattcaag gatgacaget catatgagga tgtcaatgga 3480 492 atcagaaagc ccaaacatct gtatgtgtca atgccaaacg 3520 3560 493 cccaatccag catgaagget gaagagataa caccaggaag 3600 494 attccgcact gcagtatgtg gactatatcc tgcacagata 3640 495 aaggcaagga atatggtaag ccctgtcatg agtgtagttg 496 ggttcttggc actggcaaaa gactggacat cgagaattga 3680 497 agaatggete ggtgcaccet gcaaattcat ggcggagtet 3720 498 cttattgccg ggagtttatc tgggaatcct gtgaatcgtg 3760 3800 499 actatatcag acagagacaa ggtgcacttg cagggatgga 500 gccaaaggaa tttcaagccc tcaggcaaca ttcaaaggat 3840 501 gctggatgta cactagttga acatattgag tcaccatcat 502 caatatgggt gtttgctggg gcccctgata ggtgtccacc 3920 503 aacatgcttg tttgtcggag ggatggctga attaggtgcc 3960 504 ttcttttcta tacttcagga tatgaggaac acaatcatgg 4000 4040 505 cttcaaaaac tgtgggcaca gctgatgaaa agcttcgaaa 506 gaaatcatca ttctatcaat catacctcag acgcacacaa 4080 4120 507 tcaatgggaa tacaactgga ccagaggata attgttatgt 508 ttatggttgc ctggggaaag gaggcagtgg acaactttca 4160 509 totoggtgat gacatggatc cagagetteg tageetgget 4200 510 cagatettga ttgaccagaa agtgaaggaa ateteaaacc 4240 511 aggaacctat gaaattataa gtacataaat atataatcaa 4280 4320 512 tactaactat aggttaagaa atactaatca ttagttaata 513 agaatataga tttattgaat aatcatatta aataattagg 4360 514 taagttaact agtatttagt taagttagct aattgattta 515 tatgattgtc acaattaaat gtaatcataa gcacaatcac 4440 516 tgccatgtat aatcacgggt atacgggtgg ttttcatatg 4480 4520 517 gggaacaggg tgggcttagg gccaggtcac cttaagtgac 4560 518 cttttttgt atatatggat gtagatttca attgatcgaa 4600 519 tactaatect actgteetet tttetttee ttteteette 520 tttactaaca aactacctcg tgccgaattg gccgcggatc 4640 521 ctcgcaatcc ctaggaggat taggcaaggg cttgagctca 4680 522 cgctcttgtg agggacagaa atacaatcag gggcagtata 4720 523 tgaatactcc atggagaaac ccagatctac gtatgatcag 4760 4800 524 cctcgactgt gccttctagt tgccagccat ctgttgtttg 525 eccetecece gtgccttect tgacectgga aggtgccact 4840 526 occactgtoc tttoctaata aaatgaggaa attgcatcgo 4880

RAW SEQUENCE LISTING

DATE: 09/26/2000 TIME: 16:43:00

PATENT APPLICATION: US/09/491,974

Input Set : A:\Sequence Listing.TXT
Output Set: N:\CRF3\09262000\1491974.raw

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528 ggggcaggac agcaaggggg aggattggga agacaatagc
     529 aggcatgctg gggatgcggt gggctctatg gcttctgagg
     530 cggaaagaac cagctggggc tcgacagctc gactctagaa
                                                       5040
     531 ttgcttcctc gctcactgac tcgctgcgct cggtcgttcg
                                                       5080
     532 gctgcggcga gcggtatcag ctcactcaaa ggcggtaata
                                                       5120
     533 cggttatcca cagaatcagg ggataacgca ggaaagaaca
     534 tgtgagcaaa aggccagcaa aaggccagga accgtaaaaa
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     535 ggccgcgttg ctggcgtttt tccataggct ccgccccct
                                                       5240
     536 gacgagcatc acaaaaatcg acgctcaagt cagaggtggc
                                                       5280
     537 gaaacccgac aggactataa agataccagg cgtttccccc
                                                       5320
     538 tggaagetee etegtgeget eteetgttee gaccetgeeg
                                                       5360
     539 cttaccggat acctgtccgc ctttctccct tcgggaagcg
                                                       5400
     540 tggcgctttc tcaatgctca cgctgtaggt atctcagttc
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     541 ggtgtaggtc gttcgctcca agctgggctg tgtgcacgaa
                                                       5480
     542 cccccgttc agcccgaccg ctgcgcctta tccggtaact
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     543 atogtottga gtocaacoog gtaagacacg acttatogco
                                                       5560
     544 actggcagca gccactggta acaggattag cagagcgagg
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     545 tatgtaggcg gtgctacaga gttcttgaag tggtggccta
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     546 actacggcta cactagaagg acagtatttg gtatctgcgc
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     547 tetgetgaag ceagttacet teggaaaaag agttggtage
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     548 tottgatocg gcaaacaaac caccgctggt agcggtggtt
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     549 tttttgtttg caagcagcag attacgcgca gaaaaaaagg
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     550 atctcaagaa gatcctttga tcttttctac ggggtctgac
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                                                       5880
     551 gctcagtgga acgaaaactc acgttaaggg attttggtca
     552 tgagattatc aaaaaggatc ttcacctaga tccttttaaa
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     554 taaacttggt ctgacagtta ccaatgctta atcagtgagg
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     555 cacctatete agegatetgt ctatttegtt catecatagt
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     556 tgcctgactc
                                                       6050
E--> 559 (51)
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/491,974

DATE: 09/26/2000 TIME: 16:43:01

Input Set : A:\Sequence Listing.TXT
Output Set: N:\CRF3\09262000\I491974.raw

L:19 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:35 M:283 W: Missing Blank Line separator, <220> field identifier L:36 M:283 W: Missing Blank Line separator, <400> field identifier L:137 M:283 W: Missing Blank Line separator, <220> field identifier L:138 M:283 W: Missing Blank Line separator, <400> field identifier L:190 M:283 W: Missing Blank Line separator, <400> field identifier L:192 M:283 W: Missing Blank Line separator, <220> field identifier L:402 M:283 W: Missing Blank Line separator, <400> field identifier L:402 M:283 W: Missing Blank Line separator, <220> field identifier L:404 M:283 W: Missing Blank Line separator, <400> field identifier L:404 M:283 W: Missing Blank Line separator, <400> field identifier L:559 M:254 E: No. of Bases conflict, LENGTH:Input:1 Counted:6050 SEQ:4